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EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

2616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/759,153	<b>Applicant(s)</b> NAIM ET AL.	
	<b>Examiner</b> TOAN D. NGUYEN	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-9,13-16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-9,13-16 and 18-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/19/08 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 3-4, 7-9, 13-16 and 18-32 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

3. Claims 8-9 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the allocation of the communication resources" in line 6. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Kawabata et al. (US 2002/0114292).

For claim 14, Kawabata et al. disclose radio channel assigning device and method thereof, comprising;

a controller (figure 16, reference 14, page 1, paragraph [0013], line 5) configured to control allocation of communication resources for at least one mobile station (figure 16, reference 1a-1d, page 1, paragraph [0012], line 3), wherein the allocation is based upon received queue length information for the at least one mobile station (page 7, paragraph [0100], lines 6-10).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 3-4, 7, 16 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (EP 0981229 A2) in view of Yao et al. (US 6,785,262).

For claims 1, 7 and 16, Hwang et al. disclose controlling asymmetric dynamic radio bearers in mobile packet data communications system, comprising:

monitoring a first network element (figure 1, reference 1) for an indication of future need of communication resources in a first network element (Abstract, lines 14-16, page 3, col. 4, lines 18-25); and

allocating the communications resources for a transmission between the first network element (figure 1, reference 1) and a second network element based on the indication (Abstract, lines 1-9, page 2, col. 2, line 18 to page 3, line 1).

However, Hwang et al. do not expressly disclose wherein the indication comprises a coded value of a length of a data queue in the first network element. In an analogous art, Yao et al. disclose wherein the indication is a code value (col. 9, lines 57-59) of a length of the data queue in the first network element (figure 3, reference 10)(col. 12, lines 6-8, and col. 12, lines 41-43).

Yao et al. disclose wherein the first network element is a mobile station (figure 3, reference 10) and the second network element is a base station (figure 3, reference 12) of a wireless communication network (col. 7, lines 27-28 as set forth in claim 7); and wherein the monitoring comprises receiving data packets and wherein each of the data

packets comprises the indication of the length of the data queue is sent in every packet (col. 9, lines 51-60 as set forth in claim 16).

One skilled in the art would have recognized the wherein the indication is a coded value of the length of the data queue in the first network element, and would have applied Yao et al.'s determine the channel quality based on the length of queue 408 in Hwang et al.'s mobile station transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system in Hwang et al.'s controlling asymmetric dynamic radio bearers in mobile packet data communications system with the motivation being to determine channel quality (col. 12, line 1).

For claim 3, Hwang et al. disclose wherein the indication comprises information about a transmit buffer of the first network element (page 2, col. 2, lines 23-44).

For claim 4, Hwang et al. disclose wherein the indication comprises information on the additional resources needed for said first network element (figure 4, page 2, col. 2, lines 28-34, and page 5, col. 7, lines 9-36).

For claim 31, Hwang et al. disclose controlling asymmetric dynamic radio bearers in mobile packet data communications system, comprising:

monitoring a first network element (figure 1, reference 1) for an indication of future need of communication resources in a first network element (Abstract, lines 14-16, page 3, col. 4, lines 18-25); and

allocating the communications resources for a transmission between the first network element (figure 1, reference 1) and a second network element based on the indication (Abstract, lines 1-9, page 2, col. 2, line 18 to page 3, line 1).

However, Hwang et al. do not expressly disclose wherein the indication comprises a coded value of a length of a data queue in the first network element. In an analogous art, Yao et al. disclose wherein the indication is a code value (col. 9, lines 57-59) of a length of the data queue in the first network element (figure 3, reference 10)(col. 12, lines 6-8, and col. 12, lines 41-43).

One skilled in the art would have recognized the wherein the indication is a coded value of the length of the data queue in the first network element, and would have applied Yao et al.'s determine the channel quality based on the length of queue 408 in Hwang et al.'s mobile station transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system in Hwang et al.'s controlling asymmetric dynamic radio bearers in mobile packet data communications system with the motivation being to determine channel quality (col. 12, line 1).

9. Claims 8-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et al. (US 6,785,262) in view of Hwang et al. (EP 0981229 A2).

For claim 8, Yao et al. disclose method and apparatus for voice latency reduction in a voice-over-data wireless communication system, comprising:

a plurality of first stations (figure 3, reference 10, col. 7, line 2);

a second station (figure 3, reference 12) connected to said plurality of first stations (figure 3, reference 10) through a plurality of communication links (col. 7, lines 27-28);

a controller (figure 3, reference 14) configured to control the allocation of the communication resources among the communications links, the controller being separate and independent from the first station (col. 7, lines 31-32), wherein the information comprises a coded value (col. 9 lines 57-59) of a lengths of a data queues in each of the first stations (col. 12, lines 6-8).

However, Yao et al. do not expressly disclose said allocation being performed in accordance with information transmitted from the first stations. In an analogous art, Hwang et al. disclose said allocation being performed in accordance with information transmitted from the first stations (figure 1, Abstract, lines 14-16, and page 3, col. 4, lines 18-25).

One skilled in the art would have recognized said allocation being performed in accordance with information transmitted from the first stations which indicates a need for communication resources, and would have applied Hwang et al.'s mobile station transmission in Yao et al.'s determine the channel quality based on the length of queue 408. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Hwang et al.'s controlling asymmetric dynamic radio bearers in mobile packet data communications system in Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system with the motivation being requested radio service (page 3, col. 4, line 20).



For claim 9, Yao et al. disclose wherein said controller (figure 3, reference 14) is part of said base station (figure 3, reference 12) (col. 7 lines 29-31).

For claim 13, Yao et al. disclose wherein each of said first station transmits a transmission comprising a plurality of data blocks, and wherein the coded value of the length of a data queues of one of the first stations is provided in each of said data blocks in the transmission associated with said one first station (col. 9, lines 51-59, and col. 12, lines 2-5).

10. Claims 15, 19, 21-25, 29-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et al. (US 6,785,262) in view of Ishida et al. (US 6,975,604).

For claim 15, Yao et al. disclose method and apparatus for voice latency reduction in a voice-over-data wireless communication system, comprising:

a data queue, configure to receive data packets (figure 4, reference 408, col. 9, line 18);

an encoder (figure 4, reference 406) configured to encode a code (col. 9, lines 57-59) representative of the length of the data queue (col. 9, line 17, and col. 12, lines 6-13);  
and

a transmitter (figure 4, reference 420) configured to transmit said data with said code included therein as a field (col. 9, lines 17-20).

However, Yao et al. do not expressly disclose a data generator. In an analogous art, Ishida et al. disclose a data generator (figure 6, reference 617, col. 8, line 42-43);

One skilled in the art would have recognized the data generator, and would have applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based on the length of queue 408. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Ishida et al.'s base station controller and mobile station in Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system with the motivation being to generate data into frames (col. 8 lines 58-60).

For claim 19, Yao et al. disclose wherein the transmitter is further configured to transmit the indication in each data packet that is transmitted from the transmitter (col. 9, lines 17-20).

For claim 21, Yao et al. disclose method and apparatus for voice latency reduction in a voice-over-data wireless communication system, comprising:

data queue means for receiving data packets (figure 4, reference 408, col. 9, line 18);

encoder means (figure 4, reference 406) for encoding a code (col. 9, lines 57-59) representative of a length of the data queue means (col. 9, line 17, and col. 12, lines 6-13); and

transmitter means (figure 4, reference 420) for transmitting data with said code included therein as a field (col. 9, lines 17-20).

However, Yao et al. do not expressly disclose a data generator. In an analogous art, Ishida et al. disclose a data generator (figure 6, reference 617, col. 8, lines 42-43);

One skilled in the art would have recognized the data generator, and would have applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based on the length of queue 408. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Ishida et al.'s base station controller and mobile station in Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system with the motivation being to generate data into frames (col. 8, lines 58-60).

For claim 22, Yao et al. disclose method and apparatus for voice latency reduction in a voice-over-data wireless communication system, comprising:

encoding (figure 4, reference 406) a code (col. 9, lines 57-59) representative of a length of a data queue in a first network element (col. 9, line 17, and col. 12, lines 6-13), wherein the data queue is configured to receive the data (figure 4, reference 408, col. 9, line 18); and

transmitting (figure 4, reference 420) data packets comprising a field comprising said code (col. 9, lines 17-20), wherein said code (col. 9 lines 57-59) is used when allocating communication resources for a transmission between the first network element and a second network element (col. 7, lines 27-32).

However, Yao et al. do not expressly disclose generating data. In an analogous art, Ishida et al. disclose generating data (figure 6, reference 617, col. 8, lines 42-43);

One skilled in the art would have recognized the data generator, and would have applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based on the length of queue 408. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention, to use Ishida et al.'s base station controller and mobile station in Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system with the motivation being to generate data into frames (col. 8, lines 58-60).

For claim 23, Yao et al. disclose wherein the code (col. 9, lines 57-59) further comprises information about a transmit buffer of the first network element (col. 12, lines 6-8, and col. 12, lines 41-43).

For claim 24, Yao et al. disclose wherein the code comprises information on the additional resources needed by said first network element (col. 12, lines 6-13, and col. 12, lines 41-43).

For claim 25, Yao et al. disclose wherein the first network element is a mobile station (figure 3, reference 10) and the second network element is a base station (figure 3, reference 12) of a wireless communication network (col. 6, lines 52-54).

For claim 29, Yao et al. disclose wherein the code (col. 9, lines 57-59) further comprises information about a transmit buffer for the apparatus (col. 12, lines 6-8, and col. 12, lines 41-43).

For claim 30, Yao et al. disclose wherein the code comprises information on the additional resources needed by each of the at least one mobile station (col. 12, lines 6-13, and col. 12, lines 41-43).

For claim 32, Yao et al. disclose method and apparatus for voice latency reduction in a voice-over-data wireless communication system, comprising:

encoding (figure 4, reference 406) a code (col. 9, lines 57-59) representative of a length of a data queue in a first network element (col. 9, line 17, and col. 12, lines 6-13), wherein the data queue is configured to receive the data (figure 4, reference 408, col. 9, line 18); and

transmitting (figure 4, reference 420) data packets comprising a field comprising said code (col. 9, lines 17-20), wherein said code (col. 9 lines 57-59) is used when allocating communication resources for a transmission between the first network element and a second network element (col. 7, lines 27-32).

However, Yao et al. do not expressly disclose generating data. In an analogous art, Ishida et al. disclose generating data (figure 6, reference 617, col. 8, lines 42-43);

One skilled in the art would have recognized the data generator, and would have applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based on the length of queue 408. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Ishida et al.'s base station controller and mobile station in Yao et al.'s method and apparatus for voice latency reduction in a voice-over-data wireless communication system with the motivation being to generate data into frames (col. 8, lines 58-60).

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et al. (US 6,785,262).

For claim 20, Yao et al. disclose method and apparatus for voice latency

reduction in a voice-over-data wireless communication system, comprising:

a decoder means (figure 6, reference 614) for decoding a data queue in at least one mobile station (col. 13, lines 55-57); and

a controller (figure 3, reference 14) configured to control allocation of communication resources (col. 7, line 32),

wherein said decoder (figure 6, reference 614) provides information for the at least one mobile station (figure 3, reference 10) to the controller (col. 7, lines 27-32).

However, Yao et al. do not expressly disclose decoding a code representative of a length of the data queue in at least one mobile station. To include the decoding a code representative of a length of a data queue in at least one mobile station would have been obvious to one of ordinary skill in the art because the decoder 614 would decode the data frames generated by the voice encoder 406 based on the length of queue 408 (a code representative of a length of the data queue in at least one mobile station means).

12. Claims 18, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (US 2002/0114292) in view of Yao et al. (US 6,785,262).

For claims 26-28, Kawabata et al. do not expressly disclose:

a decoder configured to:

decode the queue length information for each of the at least one mobile station,  
and

provide said queue length information for each of the at least one mobile station to the controller.

In an analogous art, Yao et al. disclose:

a decoder (figure 6, reference 614) configured to:

decode the queue length information for each of the at least one mobile station (col. 13, lines 55-57), and

provide said queue length information for each of the at least one mobile station (figure 3, reference 10) to the controller (col. 7, lines 27-32).

Yao et al. disclose wherein the decoder receives a plurality of data packets and each of said data packets comprises said queue length information (col. 13, lines 55-57 as set forth in claim 18); wherein the code (col. 9, lines 57-59) comprises information about a transmit buffer for each of the at least one mobile station (figure 3, reference 10)(col. 12, lines 6-8, and col. 12, lines 41-43 as set forth in claim 27); and wherein the code comprises information on the additional resources needed by each of the at least one mobile station (col. 12, lines 6-13, and col. 12, lines 41-43 as set forth in claim 28).

However, Yao et al. do not expressly disclose decoding a code representative of a length of the data queue in at least one mobile station. To include the decoding a code representative of a length of a data queue in at least one mobile station would have been obvious to one of ordinary skill in the art because the decoder 614 would decode the data frames generated by the voice encoder 406 based on the length of queue 408 (a code representative of a length of the data queue in at least one mobile station means).

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. D. N./

Examiner, Art Unit 2616

/FIRMIN BACKER/

Supervisory Patent Examiner, Art Unit 2616